

REMARKS

Claims 1-28 are active in the present application. Claims 20-28 are new claims. Support for the new claims is found in the original claims. Claims 3-7, 9 and 11-19 have been amended to remove multiple dependencies. No new matter is added. An action on the merits and allowance of claims is solicited.

Respectfully submitted,

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Serial No: \_\_\_\_\_

Amendment Filed on: 3-21-2002IN THE CLAIMS

Please amend the claims as follows.

--3. (Amended) A sulfonyl amino acid derivatives according to claim 1 [or 2],  
wherein n is 1.

4. (Amended) A sulfonyl amino acid derivative according to [any of the preceding claims] claim 1, wherein Ar<sup>1</sup> and Ar<sup>2</sup> are independently selected from the group comprising or consisting of phenyl, thienyl, furyl, pyridyl, said residues being optionally substituted by at least one substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkyl, like trihalomethyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxy, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, acyloxy, acylamino, sulfoxy, sulfonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>- thioalkoxy.

5. (Amended) A sulfonyl amino acid derivative according to [any of the preceding claims] claim 1, wherein at least one of R<sup>3</sup> and/or R<sup>4</sup> is selected from the group consisting of the following natural amino acid residues : alanyl, arginyl, asparaginy, aspartyl, cysteinyl, glu-taminy, glutamyl, glycy, histidyl, isoleucyl, leucyl, lysyl, methionyl, phenylalanyl, prolyl, seryl, threonyl, tryptophanyl, tyrosyl, valyl.

6. (Amended) A sulfonyl amino acid derivative according to [any of the preceding claims] claim 1, wherein

Ar<sup>1</sup> is an unsubstituted or substituted phenyl, preferably 4-chlorophenyl, X is O, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are hydrogen, n is 1, Ar<sup>2</sup> is thienyl, R<sup>5</sup> is H or C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sup>6</sup> is selected from the group comprising or consisting of H, a substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-aliphatic alkyl - e.g. a C<sub>1</sub>-C<sub>6</sub>-alkylamino aryl, a C<sub>1</sub>-C<sub>6</sub>-alkylamino heteroaryl, a substituted or unsubstituted cyclic C<sub>4</sub>-C<sub>8</sub>-alkyl containing optionally 1-3 heteroatoms and being optionally fused with an unsubstituted or substituted aryl or heteroaryl; or R<sup>6</sup> is an unsubstituted or substituted aryl or heteroaryl;

said aryl or heteroaryl groups are optionally substituted by substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkyl, like trihalomethyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxy, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy, C<sub>1</sub>-C<sub>6</sub>-thioalkoxy; or

R<sup>5</sup> and R<sup>6</sup> taken together could form an unsubstituted or substituted 4-8-membered saturated cyclic alkyl or heteroalkyl group, e.g. an unsubstituted or substituted piperidino group.

7. (Amended) A sulfonyl amino acid derivative according to [any of the preceding claims] claim 1, wherein

R<sup>5</sup> is H; and R<sup>6</sup> is a C<sub>1</sub>-C<sub>6</sub>-alkyl which is substituted by an aryl, an heteroaryl group or an aminoaryl, aminoheteroaryl, aryloxy, heteroaryloxy, whereby said aryl and heteroaryl groups are optionally substituted by substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkyl, like trihalomethyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxy, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkenyl, substituted or unsubstituted C<sub>2</sub>-C<sub>6</sub>-alkynyl, amino, acylamino, aminocarbonyl, substituted or unsubstituted C<sub>1</sub>-C<sub>6</sub>-alkoxycarbonyl, substituted or unsubstituted aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy, C<sub>1</sub>-C<sub>6</sub>-thioalkoxy.

9. (Amended) A sulfonyl amino acid derivative according to [any of the preceding claims] claim 1 which is selected from the following group :

4-chloro-N-((5-[(2-[(2-[(3-chloro-5-(trifluoromethyl)pyridin-2-yl)amino}ethyl)-amino]-2-oxoethyl}amino)sulfonyl]thien-2-yl)methyl)benzamide

4-chloro-N-[(5-[(2-[(2-[(5-nitropyridin-2-yl)amino)ethyl]amino}-2-oxoethyl)-amino]sulfonyl]thien-2-yl)methyl]benzamide

4-chloro-N-((5-[(2-oxo-2-[(2-[(3-(trifluoromethyl)pyridin-2-yl)amino}ethyl)-amino]ethyl}amino)sulfonyl]thien-2-yl)methyl)benzamide

4-chloro-N-((5-[(2-oxo-2-[(2-[(5-(trifluoromethyl)pyridin-2-yl)amino}ethyl)-amino]ethyl}amino)sulfonyl]thien-2-yl)methyl)benzamide

N-((5-[(2-[(4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]-2-oxoethyl}amino)-sulfonyl]thien-2-yl)methyl)-4-chlorobenzamide

4-chloro-N-[(5-[(2-oxo-2-{3-[(trifluoromethyl)sulfonyl]anilino}ethyl)amino]-sulfonyl]thien-2-yl)methyl]benzamide.

12. (Amended) Use according to claim 10 [or 11] for the treatment or prevention of disorders associated with abnormal expression or activity of JNK2 and/or 3.

13. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular [according to any of claims 10 to 12] claim 10 for the treatment of neuronal disorders including epilepsy; Alzheimer's disease, Huntington's disease, Parkinson's disease; retinal diseases, spinal cord injury, head trauma.

14. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular according to [any of claims 10 to 12] claim 10 for the treatment of autoimmune diseases including Multiple Sclerosis, inflammatory bowel disease (IBD), rheumatoid arthritis, asthma, septic shock, transplant rejection.

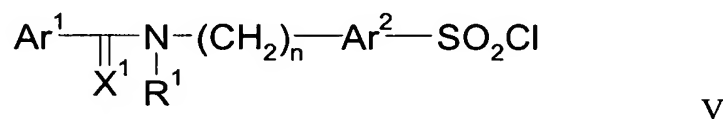
15. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular according to [any of claims 10 to 12] claim 10 for the treatment of cancer including breast-, colorectal-, pancreatic cancer.

16. (Amended) Use of a sulfonyl amino acid derivative according to formula I in particular according to [any of claims 10 to 12] claim 10 for the treatment of cardiovascular diseases including stroke, arterosclerosis, myocordial infarction, myocordial reperfusion injury.

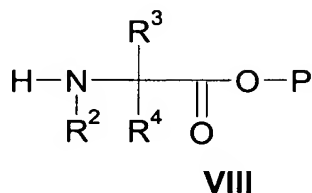
17. (Amended) A pharmaceutical composition containing at least one sulfonyl amino acid derivative according to [any of the claims 1 to 9] claim 1 and a pharmaceutically acceptable carrier, diluent or excipient thereof.

18. (Amended) Process for the preparation of a sulfonyl amino acid derivative according to [any of the claims 1 to 9] claim 1 comprising or consisting of the steps of:

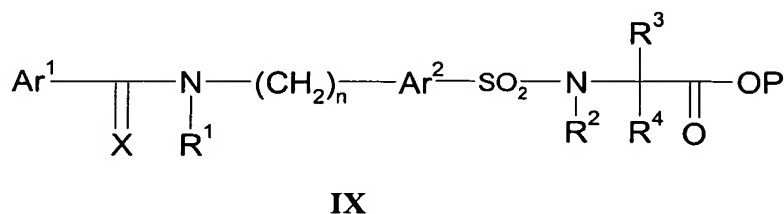
e) preparing a sulfonyl compound V,



f) reacting it with the protected amino acid compound VIII



thus leading to a compound

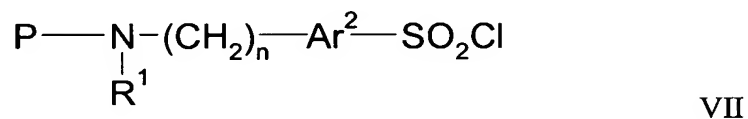


g) said compound IX is subjected to a deprotection and finally

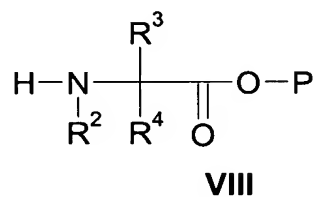
h) a coupling.

19. (Amended) Process for the preparation of the sulfonyl amino acid derivatives according to [any of the claims 1 to 9] claim 1 comprising or consisting of the steps of:

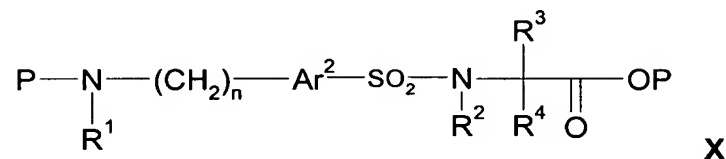
a) preparing a protected sulfonyl compound VII



b) reacting it with the protected amino acid compound VIII



thus leading to a compound



e) followed by deprotection;

f) coupling;

g) deprotection, and

h) acylation.--

Claims 20-28 (New).